Table: Post SCRA Data Treatment Summary for the RI and BLRAs

	ERA	HHRA	Background	RI
Data Set	• Category 1 QA2 only	• Category 1 QA2 only	• Category 1 QA2 only	• Category 1 QA1 and Category 1 QA2
Summation Rules	• If at least one group component for a given sample is detected, sum the following: a) For those analytes that are detected (D), use D value(s) in sum b) For those analytes that are not detected (ND), but determined to be present[a], use ½ DL in sum c) For those analytes that are ND and determined not to be present[a], use 0 in sum • If all analytes for a chemical group are ND, report max DL and flag result as ND (U-qualified) • If any value in a chemical group is estimated (J qualified), then the total also is estimated (J qualified).	• Same as ERA, except for the method of determining whether an analyte is present[a] in tissue.	• Same as ERA	• ND = 0 in all sums[a] • If any of the values going into a total are estimated (J qualified), then the total value is estimated (J qualified). • If all analytes in a total are non-detects, then the highest detection limit is used for the total.
TEQ Calculations	• If at least one TEQ constituent for a given sample is detected, sum the following: a) For those analytes that are detected (D), use D multiplied by the TEF in the sum b) For those analytes that are not detected (ND), but determined to be present[a], use ½ DL multiplied by the TEF in the sum	• Same as ERA, except for the method of determining whether an analyte is present[a] in tissue.	• Same as ERA	• Detected values are multiplied by the TEF • ND values are set to zero for the calculation • The weighted components are summed for each sample.

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	c) For those analytes that are ND, and determined not to be present[a] , use 0 in sum • If all analytes used to create a TEQ are ND, report the max toxicity-weighted DL as the TEQ, and flag result as ND (U-qualified)			
Field Replicates[b]	• When calculating a mean or a UCL, and when reporting data in general, replicates are included in the dataset as discrete samples. • When generating Thiessen polygons (or any other task which spatially weights data), replicates are included as long as they have unique coordinates. Replicates that share coordinates with the first sample are excluded from these datasets.	• Same as ERA	• Replicates averaged rather than considered discreet samples (reflecting attempt to avoid bias of overweighting a single sample location. The potential for bias is greater in the background dataset due to the much smaller sample size as compared to the study area dataset for all media)	• Same as ERA

OC-normalization	• OC normalization rules are as follows:
	  • For all calculations, use the fractional organic carbon content, f_{oc} (TOC%/100)
	  • OC-normalized values are calculated as C_{dw}/ f_{oc}
	  • For higher TOC values (>4.0%), evaluate individual samples for possible anthropogenic contributions to organic carbon (e.g., woodwaste, petroleum, NAPLs or sewage) that may confound partitioning assumptions
		n/a	• Same as ERA	n/a

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	• For TOC < 0.2% or high values with contributions from possible anthropogenic wastes (see previous step), no OC-normalized value will be calculated (in these few cases, data will be evaluated on a dry-weight basis only). • For samples without TOC data, an appropriate value will be either estimated based on a regression between percent fines and TOC or extrapolated using the nearest available sample data. An OC-normalized concentration will be calculated using the estimated/extrapolated TOC according to the rules above.			

[a] The rationale for representing non-detects as 0 in the RI: The use of ND=0 in the summation approach allows for clearer presentation of the measured (detected) distribution of chemicals. It is recognized that summation of long lists of chemicals can be highly skewed by the detection limits, essentially smoothing out the data distribution and obscuring patterns. In contrast, for the risk assessments, application of ½ DLs is appropriate in the sums because it conservatively minimizes the potential for underestimation in determination of risk.

[b] This refers specifically to post-SCRA treatment of field replicates. Lab replicates and split samples are handled consistently before being entered in the SCRA; specifically, both lab replicates and splits are averaged before entry into the SCRA.